



Science & Technology Integration Overview

Ming Ji
Director, OSTI

NWS Climate Service Meeting
9-12 May 2016

Objective: Coordinate, Integrate, and Manage Field Driven R2O

1. **Improve effectiveness of field R2O through centralized coordination and resource management (NAPA)**
2. **Scope**
 - Transition and enhance operational models
 - Centralized management of research, development and testing environment
 - Integrate research advancements, improved model guidance, and DSS tools into field operations
 - Social science integration and training development
 - Support targeted collaborative applied R&D (*e.g.*, CSTAR)

Topics

- 1. Governance: Requirements and STI**
- 2. Service Level Agreement with
Climate**

Program Office (OAR)

Requirements and STI

Service Requirements

1. Field pull

- Requests to Requirements: AFS - CaRDS – MDC
- Service Delivery Portfolios (incl. STI) to assess feasibility (science, resource), and to develop solutions
- Circle back to MDC for prioritization if necessary

2. Science push

- AFS/MDC vetting for requirements and prioritization

Requirements and STI

1. Solutions to Validated Requirements:

- Should not be an outcome of CaRDS (an important distinction from OSIP)
- Service Delivery Portfolios (incl. STI) lead evaluation and coordination to develop solutions

2. Solutions:

- Technical input/expertise: CPC, field, OAR, research community
- The field should have “ownership” of solutions
- The “execution side” of the NWS “tree” (NCEP/NWC/SSDs/SOOs-DOHs) carries out bulk of the development and implementation of the solutions

Key Considerations to STI Funding Decision Process

1. **Coordinated Solution(s)**

- Systematic approaches to avoid “Random Walk”, redundancy, ...

2. **Scientific/Technical alignment**

- Sound scientific basis?
- Aligned to overall technical approaches?

3. **Must have a Viable Transition Path**

- *e.g.*, who/how to operate, CONOPS, O&M tail

4. **Resource Dependencies**

- *e.g.*, WCOSS, IDP, AWIPS/SBN, observing system/data, training
- Resource commitment from relevant Portfolios? (AOP process)

5. **Executable** (*e.g.*, who, how, cost, schedule)

- A vetted project plan (timeline, deliverable, risks, ...)

Coordination with CPO in SLA Process

1. **Strategic approach to coordinate and prioritize** (Under the CTB framework)
 - CFS v2.5
 - Reanalysis/Re-forecasting
 - NMME enhancements
 - Arctic sea ice prediction/outlooks
 - Drought/Western water resource
 - S2S products/services
2. **NWS commitment to transition/operational implementation**
 - *Clearly identified transition path, (e.g., CPC, NWC, EMC)*
 - *Commitment from NWS for transition – AA sign off as a package, per NAO 216-105 – May need to vet through MDC*
 - *(STI Director delegated the AA sign off authority)*

END

